



ALLOWED CLAIMS

ANTERIOR LUMBAR PLATE AND METHOD

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1. A stabilizer for lumbar/sacral junction and comprising:
a plate having a front wall and a foot portion projecting rearwardly from a lower portion of the wall and having a caudally-directed bottom surface;
two upper holes in the wall to receive screws for passage into an L5 vertebra; and
two lower holes in the wall and extending through the bottom surface of the plate to receive screws for passage through said foot portion into the sacrum.
2. The stabilizer of claim 1 and wherein:
said plate has front wall recesses, one for each of said lower holes and providing seating surfaces for heads of screws when received in said lower holes.
3. The stabilizer of claim 2 and wherein:
said seating surfaces are inclined inwardly whereby screw heads when received thereon are self-centering.
4. The stabilizer of claim 3 and wherein:
said inwardly inclined surfaces are curved downwardly toward entrance ends of said lower holes.
5. The stabilizer of claim 3 and wherein:
said lower holes have axes which converge as they extend below the bottom of the plate.
6. The stabilizer of claim 5 and wherein:
said axes lie in a plane generally parallel to the lower portion of the front wall.
7. A stabilizer for the lumbar/sacral joint of a higher vertebra and comprising:
a plate having an upper portion and a foot portion,

the upper portion being curved in a horizontal plane for fitting to an L-5 vertebra and the foot portion being shaped to reside in anterior inter-vertebral space between L-5 and S-1 and to be fittingly received and rest on the sacrum superior end plate;

at least one fastener through the upper portion and generally perpendicular to the upper portion for anchorage to L-5;

a second fastener through the foot portion at an angle for reception and extension in cortical bone of the sacrum at the sacral promontory, and for engagement in cortical bone at the S1-S2 junction.

8. The stabilizer of claim 7 and further comprising:

third and fourth fasteners, said third fastener extending through the upper portion and generally perpendicular to the upper portion;

said fourth fastener extending through said foot portion at an angle for reception and extension in cortical bone of the sacrum at the sacral promontory and for engagement in cortical bone at the S1-S2 junction.

9. The stabilizer of claim 8 and wherein:

said second and fourth fasteners are elongate and have longitudinal axes and are oriented with their axes converging from their respective points of departure downward from a bottom surface of said foot portion.

10. The stabilizer of claim 7 and wherein:

said foot portion has a front wall and a bottom wall; and

said foot portion has an aperture therethrough having a fastener entrance through said front wall and a fastener exit through said bottom wall.

11. The stabilizer of claim 10 and wherein:

said aperture has a portion intermediate said entrance and exit, and a curved, fastener-head seating surface converging from said front wall to said intermediate portion.

12. The stabilizer of claim 10 and wherein:

said plate is made of a biocompatible alloy, and said foot portion thereof is adapted to load bearing on ring apophysis of the sacrum, the upper portion and foot portion being shaped in an anterior aspect to minimize contact with great circulatory vessels in the region of L5-S1.

25. The stabilizer of claim 1 wherein said lower holes have axes which converge as they extend below the bottom of the plate.